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REMARKSRECEIVED
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APR 09 2007Interview with Examiner

The Applicants thank the Examiner for the helpful telephone interview on March 20, 2007. During the interview, Applicant discussed with the Examiner the amendment of the claims to specify that the first receptacle of the housing mechanically secures the first polarizer with an interference fit. The claims have been amended in view of the cited prior art and the interview with the Examiner.

Claims Pending

Claims 67-114 are pending in the application. In the Office Action at hand, those claims are rejected. The rejections are traversed.

Rejection of Claims Under U.S.C. §103(a)

In particular, Claims 67, 69, 70, 72-76, 79-82, 84-87, 89, 90, 92-96, 99-102 and 104-114 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Uehara (5,659,376) in view of Yamada (5,508,834) and Lee (6,862,053). In addition, Claims 68, 71, 88 and 91 are rejected under § 103(a) as being unpatentable over Uehara, Yamada and Lee in view of Mizuno (US2002/0098344) and Hopper (4,388,375). Furthermore, Claims 77 and 97 are rejected under § 103(a) as being unpatentable over Uehara, Yamada and Lee, and further in view of Sawa (JP06273760). Finally, Claims 78, 83, 98 and 103 are rejected under § 103(a) as being unpatentable over Uehara, Yamada, Lee and Sawa in view of Mori (6,288,700). In response to the § 103(a) rejections, the Applicants respectfully submit that Claims 67-114, as amended, are not obvious in view of Uehara, Yamada, Lee, Mizuno, Hopper, Sawa and Mori. Reconsideration is respectfully requested.

As discussed above, independent Claims 67, 85-87 and 105-106 have been amended to recite "the first polarizer being held within a first receptacle in the housing, the first receptacle mechanically securing the first polarizer with an interference fit." In addition, Claims 84 and 104 have been amended to recite "the first and second polarizers being held within respective first and second receptacles in the housing, the first and second receptacles mechanically

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securing the first and second polarizers with an interference fit". Support for these amendments is found at least in FIGs. 2-6 as well as on page 6, lines 3-23 of the Specification as originally filed. No new matter is introduced.

Discussion of Claim Amendments

Independent Claims 67, 84-87 and 104-108 have been amended to include the additional element that the first receptacle of the housing of Applicant's display system mechanically secures the first polarizer with an interference fit. Support for this amendment to the claims can be found in the Specification at page 6, lines 3-23, which states, with reference to FIGs. 2-6, that the first polarizer 302 is mechanically secured to housing element 304 at receptacle 312. As can be seen in FIGs. 2-6, the dimensions of the first polarizer 302 is exactly that of receptacle 312, into which the first polarizer 302 is fit. Therefore, in order to mechanically secure the first polarizer 302 in receptacle 312, the fit, by definition, is an interference fit, which operates by the resistance of static friction between two surfaces. Since there are no other means of mechanical support, such as by use of adhesives, and which is specifically described in the teachings of the Specification at page 6, lines 3-23 with reference to FIGs. 2-6, the Specification supports the language of the amendment to the pending independent claims. No new matter has been added.

Advantage of Applicant's Claimed Invention

There are several advantages associated with employing an interference fit to mechanically secure a polarizer in a recess of a display system housing, rather than by other means, such as tabs or adhesives. For example, an interference fit causes the polarizer to have a precise orientation with respect to components of other components of the display system. As a particular example, polarizers can be placed with exact orientation relation to each other and the display. As described in the specification at page 9, line 29 through page 10, line 13, first and second polarizers of the display system can be crossed polarizers in which the polarizer portions are positioned at 90° relative to each other. Slight rotational offsets, between the polarizers and the display for example, by as little as 3°, can decrease the contrast ratio by as much as 20% (Table 1). The interference fit of the polarizers in the receptacles can provide precise or accurate rotational or angular positioning of the polarizer portions relative to each other and the

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display. Prior art methods of securing polarizers, such as with adhesives, can allow rotational or angular variations, resulting in unwanted decreases in contrast ratio.

Rejection under Uehara, Yamada and Lee

In contrast, Uehara discloses in FIG. 2 an LCD apparatus having a liquid crystal panel 101 which is mounted to an intermediate fixing plate 112 by elastic resin 113. The intermediate fixing plate 112 is then mounted to a frame member 114 of the housing by elastic resin 115 for obtaining the proper positioning, alignment and securement of the liquid crystal panel 101 within the housing. A first polarizer 118 is applied or secured to the lower side of a protective plate 111, which sits in a recess of plate 125, and a second polarizer 119 is applied onto the upper surface of the diffusion plate 106 of the backlight 100B. As can be seen in FIG. 2, the outer periphery of the protective plate 111/polarizer 118 unit is spaced from the side walls of the recess so that there is no mechanical securement of the protective plate 111/polarizer 118 unit by the side walls of the recess. Since the protective plate 111 and the polarizer 118 are applied as a single unit, the protective plate 111 does not mechanically secure the polarizer 118 to the plate 125. Therefore, Uehara does not hold polarizer 118 within a receptacle that mechanically secures the polarizer with an interference fit, as now claimed in the present invention. In addition, it can be seen that polarizer 119 is not mechanically secured by a receptacle.

Yamada discloses in FIG. 7 a display having a liquid crystal cell 1 with transparent cover members 6 and 7 that are spaced from the liquid crystal cell 1. Polarizers 8 and 9 are mounted to the continuous exterior surfaces of transparent cover members 6 and 7 to be out of the depth of focus. The structure of the embodiment is similar to that shown in FIG. 5 where polarizers 8 and 9 are shown adhered to the exterior surfaces of cover members 6 and 7. Referring to Fig. 6, the polarizers 8 and 9 can be positioned on the inside of the transparent cover members 6 and 7. However, the edges of the polarizers are spaced from the inner surfaces of the sides of the transparent cover members 6 and 7. As can be seen, the polarizers 8 and 9 are not held within receptacles that mechanically secure the polarizers with an interference fit.

Lee discloses in FIG. 4 a display unit 710 positioned within a chassis. As with Uehara and Yamada, Lee does not have a polarizer held within a receptacle that mechanically secures the polarizer with an interference fit.

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Accordingly, the subject matter of Claims 67, 69, 70, 72-76, 79-82, 84-87, 89, 90, 92-96, 99-102 and 104-114, as amended, are not obvious in view of Uehara, Yamada and Lee, taken separately or in any combination, since none of the references, alone or in any combination, teach or suggest "the first polarizer being held within a first receptacle in the housing, the first receptacle mechanically securing the first polarizer with an interference fit," as recited in base Claim 67, as amended, and similarly in independent or base Claims 85-87 and 105-106, as amended, or "the first and second polarizers being held within respective first and second receptacles in the housing, the first and second receptacles mechanically securing the first and second polarizers with an interference fit", as recited in Claims 84 and 104, as amended, or "the first polarizer is mechanically spaced by the housing from the image plane and mechanically secured to the housing in a manner where adhesion is not required" as further recited in dependent Claims 107-110, and similarly in dependent method Claims 111-114. Therefore, Claims 67, 69, 70, 72-76, 79-82, 84-87, 89, 90, 92-96, 99-102 and 104-114, as amended, are in condition for allowance.

Mizuno discloses an optical adhesive film formed from polyester including foreign particles having a maximum size of about 20 μm or more. In addition, Hopper discloses that a polarizer can be formed of polyester.

Claims 68, 71, 88 and 91 are not obvious in view of Uehara, Yamada, Lee, Mizuno and Hopper since none of these references, either alone or in any combination, teach or suggest "the first polarizer being held within a first receptacle in the housing, the first receptacle mechanically securing the first polarizer with an interference fit", as recited in base Claim 67, as amended and similarly in base Claim 87, as amended. Therefore, Claims 68, 71, 88 and 91 are in condition for allowance.

Sawa discloses a backlight having a light source 14, and light diffusing parts 11, 34 and 35, which are positioned in front of the light source 14.

Claims 77 and 97 are not obvious in view of Uehara, Yamada, Lee and Sawa since none of these references, either alone or in combination, teach or suggest "the first polarizer being held within a first receptacle in the housing, the first receptacle mechanically securing the first polarizer with an interference fit", as recited in base Claim 67, as amended, and similarly in base Claim 87, as amended. Therefore, Claims 77 and 97 are in condition for allowance.

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Mori discloses a light emitting flat panel device employed as a backlight which has laterally positioned LEDs 4R, 4G and 4B, for directing multicolor light into a series of lateral guide routes 2 in a board 1 for emission from a series of light emitting holes 7 in the light guide routes 2.

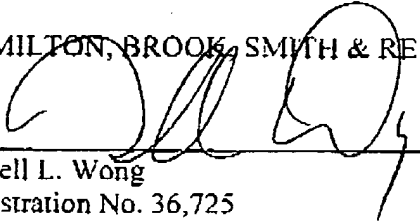
Claims 78, 83, 98 and 103 are not obvious in view of Uehara, Yamada, Lee, Sawa and Mori since none of these references, either alone or in any combination, teach or suggest "the first polarizer being held within a first receptacle in the housing, the first receptacle mechanically securing the first polarizer with an interference fit", as recited in base Claim 67, as amended, and similarly in base Claim 87, as amended. Therefore, Claims 78, 83, 98 and 103 are in condition for allowance.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the outstanding rejections be withdrawn and that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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Date: April 9, 2007